BUREAU TO STUDY MOVEMENTS OF THE SHORE FISH

(Special to the Times.)

Washington, D. C., March 5.-In an attempt to settle one of the most disputed questions encountered by Atlantic fishermen as to where the shore fishes go in the winter, and to acquire scientific data which should have far-reaching effect, R. A. Nesbit, of Woods Hole, Mass., assistant aquatic biologist of the bureau of fisheries, sailed this week from Norfolk, Virginia, on the fishery steamer Albatross IL, to explore the off-shore waters of the continental shelf from Cape Henry northward.

According to Mr. Nesbit there is a resident population of fisher off Cape Cod. These are the more important Cod. These are the more important commercial fishes, such as cod, haddock, and the many species of flounders. But there are also other commercial fishes which disappear when cold weather touches the north-

commercial fishes which disappear when cold weather touches the northern waters. These are the weakfish, or squeateague; scup, or porgy; fluke or summer-flounder, butter-fish, croaker, bluefish, sea-bass, mackerel, and others of lesser importance.

Whether these fishes gradually move out to 60 or 100 miles off shore where the water is deeper and warmer, or whether they migrate southward to shoal and warmer waters has long been an undetermined question. Nesbit says that it could safely ocstated that croakers and spot migrate southward in the winter. Whether this applies to the rest of the fishes remains to be proven by the expedition of the Albatross II., and here crew of scientists.

Work of this kind ties in with the general problem of conservation of fishes along the Atlantic seaboard, Nesbit declares. To discover the changes in abundance, the causes for such, and the problems resulting, needs all the scientific resource and energy available, he says, inasmuch as an accurate outline of the boundaries of the fisheries of the several states touching the Atlantic seaboard is one of the major problems confronting the Atlantic seaboard is one of the major problems confronting the Atlantic seaboard is one of the major problems confronting the Director of the commerce department have been doing pioneer work on the problems for years, the Woods Hole man says, and gratifying results are already beginning to appear from their scientific research.

SKIPPERS CHARGED WITH IRREGULARITIES OF FISHING

Skippers of eight British trawlers, six from Hull and Grimsby, appeared in court at Reykjavik, Iceland, recentiv, by Icelandic fishery patrols on charges of fixing irregularities in Icelandic waters.

charges of fishing irregularities in Icelardic waters.

A ninth trawler, the Kastoria, of Grimsby, was at first reported to have escaped with two guards on board, but ater cabled advices to the Grimsby owners dispelled all doubts and fears on that score. The Kastoria actually steamed into harbor at Patrixfjord, and Skipper Leo explained his delayed arrival as being the to a blizzard which caused him to put into the neighboring harbor of Dyrafjord for shelter.

According to Skipper Leo, after his arrest he was ordered into port, and while making the journey he ran into a blizzard; and as there was grave risk to his ship on the rocky coast he rounded a headland and dropped anchor in comparatively calm water, recrely waiting for Clearer visibility to obey the rommands of the Danish gunboat Aeger.

The fact that, as was first thought.

to obey the commands of the Danish gunboat Aeger.

The fact that, as was first thought, he had not attempted to escape arrest caused considerable relief in Grimsby fishery cicrles.

His explanation, corroborated by the guard on board, was accepted by the court, which fined Skipper Leo for the breach of the regulations as to stowage of gear.—St. John's Trade Review.

Fish to be Tagged.

Tagging will be the major activity of the aquatic biologists on their northward trip, he says. Trawls will be set, fishes caught, tagged with identification marks, and returned to the waters at points recorded on be set. Isses caught, tagged with identification marks, and returned to the waters at points recorded on charts. Then it is hoped that fishermen will catch the tagged ones, and return them to the bureau of fisheries so that scientific compilations may be made of their wanderings. A reward of \$1 is offered by the bureau for every tag with complete records of date and locality of recapture returned to its office at Washington or to any of the bureau's agents.

Along with tagging of fish, other scientific duties will be engaged in, mainly in recording the temperature of the water at various points, as well as its depth. From these and various other data, it is possible for the fish experts to map out the accurate distribution of the migrating fish.

In Line with Conservation Work.

(Special to the Times.)

Washington, D. C., March 5.—Announcing that the highly important dietary element, vitamin D, has been found to exist in a wide range of fish oils as a result of scientific research by government chemists, Commissioner Henry O'Malley of the United States bureau of fisheries today predicted that the discovery will aid the fishery industries and should also contribute materially to other industries such as livestock and poultry.

Heretofore, cod-liver oil, has been the chief commercial source of vitamin D, its importance being indicated by the fact that the United States has gone outside of its own territory to secure it, more than 90 per cent of this oil being imported into this country. Now after a year's research under the joint supervision of the bureau of chemistry and soils of the department of agriculture, it has been found that tuna fish, pilchard, menhaden, salmon, Alaska and Maine herring are all highly important sources of this vital element.

Already rapid commercial developments have occurred as a result of the findings, with one company planning to market more than 500,000 gallons of pilchard oil for anim il feeding. Inasmuch as more than 90 per cent of cod-liver oil used in human and animal feeding is imported into this country, Commissioner O'Malley declared that the economic advantage, particularly to the poultry industry, of the new discovery is apparent.

TEN IN BOSTON FLEET TODAY

RECEIPTS TOTAL 460,000 POUNDS WITH TWO SMALL LOTS OF HALIBUT.

The Boston Fish Pier had a smaller fleet on hand today. There were 10 craft at the dock at the opening which brought 418,000 pounds of groundfish, 7000 pounds of halibut in two lots, and 33,400 pounds of mixed fish. Prices were higher.

Yesterday's receipts by rail consisted of 1556 boxes of frozen melts from Canada and 125 boxes of salmon and halibut from the west coast Boston Arrivals and Receipts.

Boston Arrivals and Receipts.

The arrivals and fares in detail:
Str. Fabia, 80,000 haddock, 2000 cod,
6800 mixed fish.
Str. Patrick J. O'Hara, 52,000 haddock, 6000 cod, 8500 mixed fish.
Str. Flow, 73,000 haddock, 4500 cod, 8000 mixed fish.
Sch. Frances C. Donahor 52,000

cod, 8000 mixed fish.
Sch. Frances C. Denehey, 52,000
haddock, 2000 scrod, 6000 cod.
Boat Vandal, 3000 haddock.
Sch. Mary D'Eon, 10,000 haddock,
300 cod, 4500 mixed fish.
Sch. Minerva, 5500 haddock, 500

Sch. Imperator, 41,000 haddock 9000 cod, 6000 cusk, 4000 halibut. Boat Two Pals, 5600 mixed fish. Sch. Arthur D. Story, 43,000 haddock, 11,000 cod, 10,000 cusk, 3000 halibut

halibut.

Haddock, \$4.50 to \$5.25 per cwt.;
large cod, \$3 to \$3.10; market cod, \$3
to \$3.10; hake, \$4.50; pollock, \$3;
cusk, \$2 to \$2.50; gray sole, 5.90 cents
per pound; lemon sole, 8 cents; yellow tails, 1 to 1½ cents; redfish, 1
cent; halibut, 35 cents; catfish, 3
cents.

NO ARRIVALS IN 24 HOURS

HEAVIEST STORM IN YEARS BINDS FISHING CRAFT IN PORT.

No arrivals were reported here yesterday or this forenoon, outside sch. Herbert Parker from Boston, and dealers found themselves facing an almost bare market. Tomorrow holds forth no promise of fish, because it is still too rough outside for draggers and gill netters to fish. Craft are tied snug and fast at their berths, but nightfall may see some of the larger ones making an attempt to sail.

Gloucester Arrivals and Receipts.

Gloucester Arrivals and Receipts. The arrivals and fares in detail: Sch. Herbert Parker, via Boston, 30,000 lbs. fresh fish.

Sch. Azores, via Boston.

HIGHLY DIETARY **ELEMENT FOUND IN** MANY FISH OILS

Against Regulations.

Against Regulations.

The local fishing schooner J. M. Marshall, one of the incoming fleet at Boston yesterday, got into difficulties with the Canadian government authorities, when she put into Shelburne, N. S., several days ago to take on provisions, and is likely to be fined if she puts in there again, it is said. The provisions were not put aboard, Capt. Alonzo Townsend deciding against it after learning that it was against the regulations.

Ingues 6 HALIBUTER HAD FEW LARGE COD

SCH. POLLYANNA DOWN FROM BOSTON, LANDED SMALL AMOUNT OF FISH.

About 1500 pounds of large cod brought down from Boston in the sch. Pollyanna, Capt. James Mason, to the Pew wharf for splitting, was the only supply of fish to reach port since yesterday. With the clearing of a storm yesterday, many vessels weather-bound in port the past few days, sailed for the grounds.

Gloucester Arrivals and Receipts.

The arrivals and fares in detail: Sch. Pollyanna, via Boston, 1500

s. fresh fish.
Sch. J. M. Marshall, via Boston.
Sch. Restless, via Boston.

Sailed.

Sailed.

Sch. Evelina M. Goulart, dragging.
Sch. William L. Putnam, dragging.
Sch. Babe Sears, dragging.
Sch. Berbert Parker, dragging.
Sch. Evelyn G. Sears, dragging.
Sch. Mildred Silva, dragging.
Sch. Elvira Gasper, dragging.
Sch. Elvira Gasper, dragging.
Sch. Gov. Al Smith, dragging.
Sch. St. John, dragging.
Sch. St. John, dragging.
Sch. Emma Marie, dragging.
Sch. Irene and Helen, dragging.
Sch. Irene and Helen, dragging.
Sch. Minerva, shore.
Sch. Minerva, shore.
Sch. Funchal, shore.
Boat Old Glory, dragging.
Boat Geraldine and Phyllis, draging.

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Sch. Paolina, dragging. Sch. St. Rosalie, dragging. Boat Uncle Sam, dragging. Boat Capt. Drum, dragging. Boat Antonina, dragging. Boat St. Peter, dragging. Boat Bethulia, dragging.

Fitting for Halibuting.

Sch. Sadie M. Nunan is fitting for halibuting, and it is understood that Capt. Lorenzo Townsend will com-

Two More Trawlers.

The two beam trawlers building at Bath, Me., for the Booth Fisheries Company are to be called the Illinois and Maine, and are about the same size as the Ebb and Flow, constructed there and commissioned in the Boston fishing fleet last year. The Illinois will be launched in the near future and the Maine will follow her down the ways into the Kennebec within a short time.

BODY OF MAN, DROWNED FIVE MONTHS AGO, FOUND

Just five months to the date since he was swept to his death with three other men, from a boat in which they were fishing in the Ipswich river, the body of Joseph Gaffney, 44, 9 Brook road, was found yesterday, wasned up on the marshes at lower East street, six miles from where he was drowned. The three other bodier had previously been recovered. ously been recovered.

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TWENTY-THREE ON HAND TODAY

RECEIPTS OF 860,000 POUNDS OF FRESH FISH-MARKET FAIRLY STEADY.

A fleet of 23 craft, including three steamers, furnished another large supply of fresh fish for dealers on the Boston pier this morning. Total catches were 801,000 pounds of groundfish, 45,300 pounds of mixed fish, 1000 pounds of halibut and 14,000 pounds of sole. Prices were a bit lower with haddock at \$4 to \$4.50; large cod. \$2.50 to \$3 and markets, \$3.50 to \$3.

Boston Arrivals and Leceipts.

The arrivals and fares in detail: The arrivals and fares in detail:
Str. Georgetown, 35,000 haddock,
3000 cod. 4000 mixed fish.
Str. Mist. 38,000 haddock, 8000 cod,
15,000 mixed fish.
Str. Gemma, 47,000 haddock, 3000
cod. 5000 mixed fish.
Sch. Olivia Brown, 1500 haddock,
31,000 cod.
Sch. Ruth Lucille, 33,000 haddock,
1500 cod.

1500 cod. Boat Waltham H., 18,000 haddock,

Sch. Hesperus, 38,000 haddock, 18,-000 cod. 4000 cusk. Boat R. Eugene Ashley, 18,000 had-dock, 500 cod. 2000 sole. Sch. John Mantia, 12,000 haddock, 4000 cod.

Sch. John Mantia. 12,000 haddock, 4000 cod. Boat Donald. 48,000 haddock, 5500 cod, 4500 mixed fish. Boat Marisstella, 58,000 haddock, 12,000 hake.

Boat Marissella, 56,000 haddock, 12,000 hake. Sch. Amelia M. Pereira, 19,000 haddock, 9000 cod.

Boat Catherine F. Saunders, 12,000 mixed fish.
Sch. Natalie Hammond, 20,000 haddock, 17,000 cod, 7000 cusk.
Sch. Shamrock, 60,000 haddock, 20,-000 cod, 7500 mixed fish.
Sch. Killarney, 40,000 haddock, 14,-000 cod, 3000 cusk.
Sch. Rhodora, 26,000 haddock, 18,-000 cod, 1000 halibut.
Sch. Laura Goulart, 20,000 haddock, 22,000 cod, 5000 hake, 6000 cusk.
Sch. Ingomar, 45,000 haddock, 9000 cod.

Boat Frances. 4000 mixed fish.
Boat Josie, 2200 mixed fish.
Boat Two Pals, 600 mixed fish.
Boat St. Peter, 2500 mixed fish.
Boat St. Peter, 2500 mixed fish.
Haddock, \$4 to \$4.50 per cwt.; large cod, \$2.50 to \$3 market cod, \$2.50 to \$3; hake, \$2.50; gray sole. 5 to 6 cents per lb.; lemon sole, 8 cents; black backs, 5 cents; yellow tails, \$4 per bbl.; dabs, 1-2 cent per lb.: spawn, 5 cents; halibut, 30 cents, 20 cents and 10 cents; catfish, 3 cents.

and 10 cents; catfish, 3 cents.

handling this trade were developed during the year.

The utilization of fish waste was given serious study and new plants were erected and equipped with modern machinery to convert the waste fish into commercial by-products.

It is stated that local packers had considerable quantities of canned lobsters unsold at the close of 1930. It is understood that the prospects for 1931 are not very favorable, owing to unsold stocks on hand in the United States and Great Britain. It is said that more than 2,000,000 pounds of fresh lobsters were shipped from the Maritimes to Canadian and American markets in 1930 and also that 12,000 extra cases of canned lobsters were put up. Despite a price reduction of \$5 per case, as an average compared with 1929, very few more canned lobsters found their way into consumption.

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CUTTER HASTENS TO ASSISTANCE OF DISABLED CRAFT

The Coast Guard cutter Agassiz went to the assistance of the steam trawler Shawmut yesterday after the went to the assistance of the steam trawler Shawmut yesterday after the trawler got in trouble about 150 miles east of Boston Lightship. Although it was understood that the Agassiz would reach the trawler and take it in tow by 10 o'clock, no word had been received at the Nahant radio station of the Coast Guard up to a late hour last night as to whether the trip to Boston had been started. The Shawmut, owned by the Massachusetts Trawling Company, 22 Fish Pier, South Boston, and commanded by Capt. Frank Cole, was not in great danger, because the Boston steam trawler Sea stood by Both vessels were tossed about by the tremendous sea which is still running off the coast.

A wireless message yesterday asked

A wireless message yesterday asked the Coast Guard to send aid to the disabled craft and the Agassiz was ordered to abandon patrol work and proceed to the Shawmut's assistance.

proceed to the Shawmut's assistance.

The Sea, which stood by, is owned by the Bay State Fishing Company.

The Shawmut left the Fish Pier Sunday night for South Channel. At the time of the request for aid the position of the vessel was given as latitude 42.15 north, longitude 67.15 weet.

NEW CRAFT FOR

CAPT. PAUL SCOLA

Boat Jennie and Julia, built at the Rockport yard of David Waddell, for Capt. Paul Scola, of this city, was scheduled for launching on the high tide today and the 85-foot craft built off of the model of the Col Lindbergh but slightly longer, will be brought to this port and fitted for seining. The craft is named after the two daughters of Capt. Scola, who formerly owned the schooner Hope Lesslie.

LOCAL DRAGGER RECENTLY ASHORE **RETURNS HOME**

After having been repaired in dry dock at New York, the local dragger. Col. Lindbergh, owned by Capt. Harry Clattenburg. arrived home yesterday and tied up at the wharf of the Independent Fisheries company. There she will probably remain until fitting out for Southern seining. The Lindbergh, ashore recently in the Cape Cod Canal, was not damaged as much as was at first supposed.